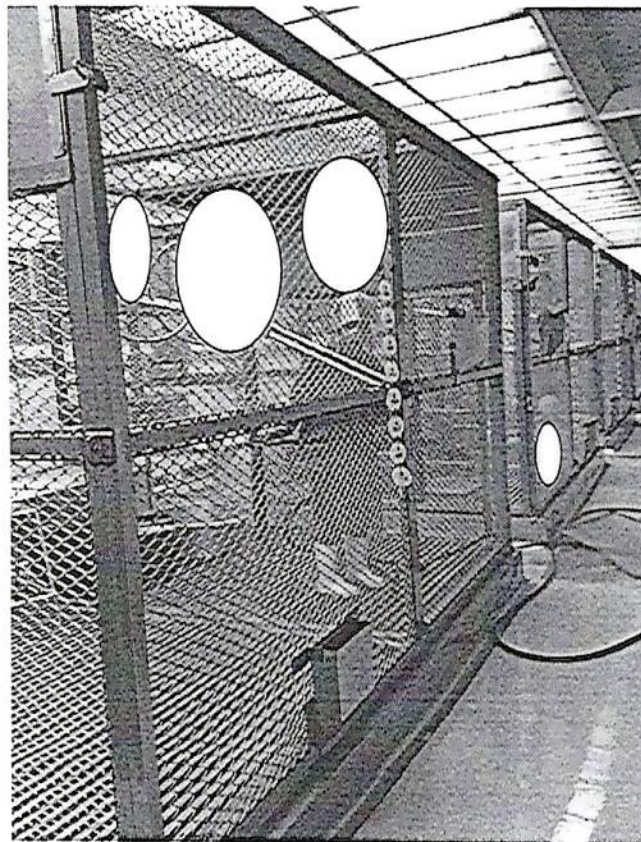


PERFORMANCE WORK STATEMENT

MODIFICATION OF NONHUMAN PRIMATE CAGES
FOR
WALTER REED ARMY INSTITUTE OF RESEARCH (WRAIR) OCONUS,
BUILDING 5 VET-MED LOCATED AT USAMD-AFIRMS WALTER REED
ARMY
INSTITUTE OF RESEARCH
BANGKOK-THAILAND

4 May 2016



1.0 GENERAL. Task Order Title: Designing and Modifying of Twenty One (21) existing 12 m²-gang-cages and Seven (7) existing 16 m²-gang-cages for a nonhuman primate in the vivarium located in Building 5 Vet Med, at Armed Forces Research Institute of Medical Sciences (AFRIMS), USAMD-AFRIMS, Bangkok-Thailand.

2.0 OBJECTIVE. The objective of this "TURN-KEY" project is for the contractor to:

2.1 Design and upgrade Twenty Eight (28) existing gang cages in compliance with *The Guide for the Care and Use of Laboratory Animals* (<https://grants.nih.gov/grants/olaw/Guide-for-the-Care-and-use-of-laboratory-animals.pdf>), European Convention ETS 123 (<https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168007a67b>) and safety requirements to promote enrichment program for a nonhuman primate. Ensuring a comprehensive completed turn-key project, that results in a fully safe, reliable, and operational system.

2.2 Provide all personnel, equipment, tools, vehicles, transportation, materials, travel, supervision, and other items and services necessary to perform repair on the gang cages under One (1) year warranty which includes transportation, travel, shipping & handling, labor, material, and parts.

3.0 LOCATION. Building 5 Vet-Med, at Armed Forces Research Institute of Medical Sciences (AFRIMS), USAMD-AFRIMS, Bangkok - Thailand.

Shipping Location: Bangkok, Thailand

Vivarium loading dock. See figure 1.
AFRIMS – Vet Med
75/45 Yothi road, Rajvithee, Rajthevee
Bangkok 10400.

4.0 EXISTING CONDITON. The gage cages need modification for maintaining routine sanitization and safety criterion according to the occupational health and safety program. Modification of Twenty Eight (28) gang cages would promote the animal enrichment program as recommended in *the Guide* for a nonhuman primate.

5.0 EMPLOYEE CONDUCT AND APPEARANCE. Most of the work would be done on site. There is a discipline for the contract to follow. The Contracting Officer's Representative (COR), with the approval of the Contracting Officer, may require the contractor to remove from the job site any employee working under this contract for reasons of misconduct, security violation, revocation/denial of requisite security clearance, or found or suspected to be under the influence of alcohol, drugs, or other incapacitating agents. Contractor personnel shall be subject to dismissal from the premises upon determination by

the COR and the Contracting Officer that such removal is in the best interests of the Government. Contractor personnel shall maintain a well-groomed appearance at all times to facilitate credibility with the staff and command.

6.0 DISCLOSURE OF INFORMATION. Contractor and subcontractor personnel shall not use, directly or indirectly, inside information to further a private gain for themselves or others if that information is not generally available to the public, and was obtained by reason of their contract positions. Any inquiries from the news media concerning events and occurrences on AFRIMS shall be referred to the AFRIMS Vet-Med Director and Project Manager as soon as possible.

7.0 SCOPE OF WORK. The contractor shall furnish all labor, manpower, materials, equipment, management, supervision, testing, inspections, certification, training, commissioning transportation, shipment delivery & receiving, supplies, custom clearance, travel, travel documentation and Visas application to provide with Twenty Eight (28) of gang cages for a nonhuman primate. This is expected to be a turn-key process that results in a fully safe, reliable, and functional system.

7.1 The contractor shall have previously performed work of similar size and scope in nonhuman primate animal research facility.

7.2 Prior to upgrading of Twenty Eight (28) gang cages for non-human primates, a prototype of upgrading of one cage is required. The design should allow for minor changes for improving of cage utilities, enrichment program, cage safety and security, and appearance.

7.3 MODIFICATION OF GANG CAGES.

7.3.1 All cage components should be made of stainless steel grade ANSI 304 or better EXCEPT wheels that should be polyurethane, nylon or equivalent.

7.3.2 Welding joints should be smooth, shine, monolithic and washable without holes, gaps, dirt, etc.

7.3.3 Sheets, rods, bars, and frames should be extruded without welding connection. All panels should have round corners. U-shape sheets/rods should be bent instead of welding where possible. The cage parts should not have any sharp/rugged edges or pieces that could harm animals or personnel who handle a cage.

7.3.4 Nominal Dimension:

- Wide x Deep x High
- 12 m² gang cage (21 cages): 3.50m x 3.50m x 2.50m, overall
- 16 m² gang cage (7 cages): 4.00m x 4.00m x 2.50m, overall
- Shown in Figure 1-10.

7.3.5 12 m² GANG CAGES:

- 7.3.5.1 Cage door: Add a 1" x 1" x 1.2mm thickness square tube under the door between the wheels to reduce the gaps which should be less than 1" and add 3.0mm thickness plates at the inner side of both wheels.
- 7.3.5.2 Wall panel legs: Replace the existing panel legs which should be adjusted from 0.5"—1.5"H and able to carry weight up to 100kg.
- 7.3.5.3 Wall panels: Replace One (1) right vertical frame with 1"W x 2"D x 1.2mm thickness square tube at each wall panel of the cage. The new right vertical frame should be equipped with the existing brackets, bolts, supports, etc. that are attaching on the existing one. Total number of the wall panels is Eight (8) panels per One (1) cage. Remove the existing bolt brackets on the frames and install new Three (3) sets of PB3 at height 0.30m, 1.25m and 2.20m at both left-right vertical frames and Two (2) sets of PB3 on the top horizontal frame at length 0.60m and 1.20m of each wall panel. Install Three (3) sets of bolts and nuts ($\varnothing 3/8"$ x 1.5"W) into Three (3) sets of $\varnothing 1/2"$ ID x $\varnothing 2.5"$ OD x 1"W ring between PB3 on the right vertical frame of each wall panel.
- 7.3.5.4 Cage roof: Replace One (1) right frame of the inner corner with 1"W x 2"H x 1.2mm thickness square tube at each roof panel of the cage. The new right frame of the inner corner should be equipped with the existing brackets, bolts, supports, etc. that are attaching on the existing right one. Total number of roof panels is Four (4) panels per One (1) cage. Remove the existing bolt brackets on the frames and install new Eight (8) sets of PB3 at length 0.60m, 1.20m on each frame (may need to adjust, please check the wall frames for positioning the PB3). Install Six (6) sets of bolts and nuts ($\varnothing 3/8"$ x 1.5"W) into Six (6) sets of $\varnothing 1/2"$ ID x $\varnothing 2.5"$ OD x 1"W ring between PB3 on both outer corner frames and right frame of the inner corner of each roof panel.
- 7.3.5.5 Transfer tunnels: Modify the existing transfer tunnels to make one end become flexible by install ring connection between the flange and the rods. There are Three (3) tunnels per One (1) cage.
- 7.3.5.6 Cage fixation arms: Install Two (2) fixation arms on top frame of the back wall panels of a cage. The fixation system should be 4"W x 4"H 1.2mm thickness box x adjustable length (two layers for sliding with holes for lock bolt) with 6"W x 6"D x 4.0mm thickness plates at both ends. The base at the cage panel and on the room wall should be 6"W x 6"D x 4.0mm thickness plate. The base should be welded on the stainless steel frame or anchor into the concrete walls with four open-end bolts and nuts ($\varnothing 3/8"$ x 1.5"W).

7.3.6 16 m² GANG CAGES:

- 7.3.6.1 Cage door: Modify the existing door to have Two (2) wheel ($\varnothing 3"$) install. Door dimension may need to be adjusted (see Figure 6).

- 7.3.6.2 Wall panels: Replace One (1) right vertical frame with 1"W x 2"D x 1.2mm thickness square tube at each wall panel of the cage. The new right vertical frame should be equipped with the existing brackets, bolts, supports, etc. that are attaching on the existing one. Total number of the wall panels is Eight (8) panels per One (1) cage. Remove the existing bolt brackets on the frames and install new Three (3) sets of PB3 at height 0.30m, 1.25m and 2.20m at both left-right vertical frames and Two (2) sets of PB3 on the top horizontal frame at length 0.60m and 1.20m of each wall panel. Install Three (3) sets of bolts and nuts ($\varnothing 3/8$ " x 1.5"W) into Three (3) sets of $\varnothing 1/2$ "ID x $\varnothing 2.5$ "OD x 1"W ring between PB3 on the right vertical frame of each wall panel.
- 7.3.6.3 Cage roof: Replace One (1) right frame of the inner corner with 1"W x 2"H x 1.2mm thickness square tube at each roof panel of the cage. The new right frame of the inner corner should be equipped with the existing brackets, bolts, supports, etc. that are attaching on the existing right one. Total number of roof panels is Four (4) panels per One (1) cage. Remove the existing bolt brackets on the frames and install new Eight (8) sets of PB3 at length 0.60m, 1.20m on each frame (may need to adjust, please check the wall frames for positioning the PB3). Install Six (6) sets of bolts and nuts ($\varnothing 3/8$ " x 1.5"W) into Six (6) sets of $\varnothing 1/2$ "ID x $\varnothing 2.5$ "OD x 1"W ring between PB3 on both outer corner frames and right frame of the inner corner of each roof panel. Add Two (2) more bumpers to protect the acrylic roof for each cage. The bumper should be same as the existing one as shown in Figure 2.
- 7.3.6.4 Transfer tunnels: Modify the existing transfer tunnels to make one end become flexible by install ring connection between the flange and the rods. There are Two (2) tunnels per One (1) cage.
- 7.3.6.5 Introduction cages: Modify One (1) lower-far corner of the cage to have an introduction cage install. The cage dimension is 0.90m W x 1.00m D x 1.20m H. Make Two (2) new wire-mesh wall panels, One (1) new wire-mesh roof panel and One (1) new rectangle-tube floor. The introduction cage should be able to dissemble for sanitizing purpose. The front wall panel should have sliding door with dimension 12.5"W x 16.5"H (wire mesh $\varnothing 1/4$ " x 1"W x 6"H pattern), located about the middle height of the cage. The door should be equipped with Two (2) PB1 for open and close position.

7.3.7 Typical Items

- 7.3.7.1 **PB1:** Padlock Bracket size 1"W x 1"D x 1"H x 1.2mm thickness L-shape flat bar with round hole ($\varnothing 1/2$ ").
- 7.3.7.2 **PB2:** Padlock Bracket size 2"W x 2"D x 2"H x 2.0mm thickness L-shape flat bar with round hole ($\varnothing 1/2$ ").

- 7.3.7.3 PB3: Padlock Bracket size 1.25"W x 2"D x 2.5"H x 4.0mm thickness
L-shape flat bar with oval hole ($\varnothing 1/2"$ x 2", diagonal up for the left
side and diagonal down for the right side).

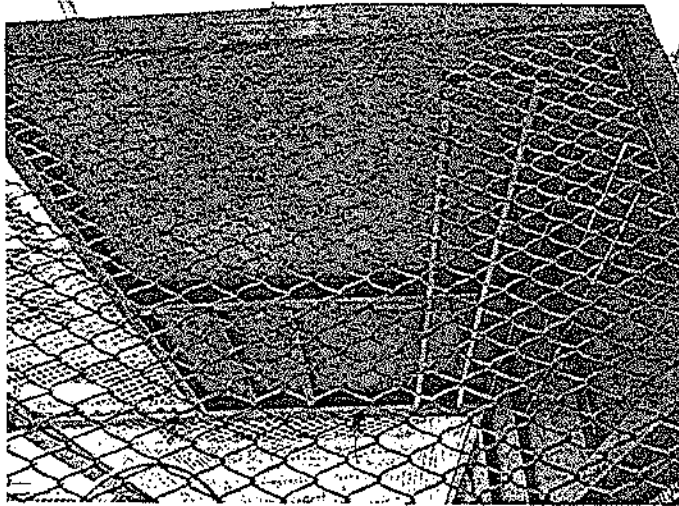


Figure 9

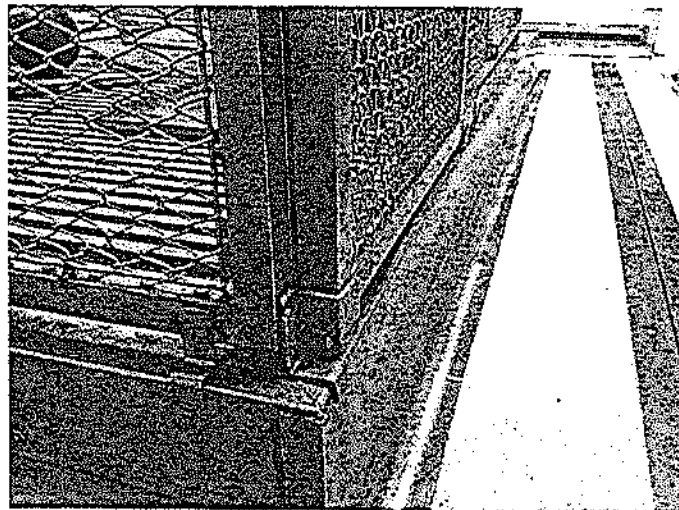


Figure 10